IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently amended) An MTAP-binding agent that specifically binds to human methylthioadenosine phosphorylase (MTAP) protein in an embedded biological sample, wherein said MTAP-binding agent is a monoclonal antibody produced by hybridoma cell line ATCC Accession No. PTA-5001, and wherein said biological sample is not embedded in OCT compound.

2-5. (Cancelled)

6. (Original) An MTAP-binding agent according to claim 1, wherein said embedded biological sample is embedded in paraffin.

7. (Original) An MTAP-binding agent according to claim 1, wherein said embedded biological sample is fixed.

8. (Original) An MTAP-binding agent according to claim 1, wherein said embedded biological sample is fixed with formalin.

9. (Original) A hybridoma cell line that produces a monoclonal antibody that specifically binds to human MTAP protein, wherein said cell line has ATCC Accession No. PTA-5001.

10. (Original) A monoclonal antibody which specifically binds to human MTAP, wherein said monoclonal antibody is produced by a cell line ATCC Accession No. PTA-5001.

11-45. (Cancelled)

46. (Currently amended) A kit for determining whether an embedded biological sample contains human MTAP protein comprising: (a) an MTAP-binding agent that specifically binds with an embedded human MTAP protein to form a binding complex; and (b) an indicator capable of signaling the formation of said binding complex ~~according to claim 45~~, wherein said MTAP-binding agent is a monoclonal antibody ~~is~~ produced by the hybridoma cell line ATCC PTA-5001.

47-50. (Cancelled).

51. (Original) A monoclonal antibody according to claim 10, wherein said antibody is immobilized onto a solid surface.

52. (Currently amended) An MTAP-binding agent according to claim 1 that specifically binds to human MTAP protein present in an embedded biological sample and

yields a statistical score, based on staining intensities, that permits the identification of an embedded sample comprising cells homozygously deleted for the gene encoding human MTAP protein, wherein said embedded sample is not embedded in OCT compound.

53-59. (Cancelled)

61. (Previously presented) An MTAP-binding agent that specifically binds to human methylthioadenosine phosphorylase (MTAP) protein in a sample obtained from a fine-needle biopsy or fine needle aspirate wherein said binding agent is a monoclonal antibody which is produced by hybridoma cell line ATCC Accession No. PTA-5001.

62-65. (Cancelled).

66. (Original) An MTAP-binding agent according to claim 61, wherein said sample is fixed.

67. (Previously presented) An MTAP-binding agent that specifically binds to MTAP protein from a sample that is affixed to a slide as a smear either manually, using a ThinPrep processor, using a Cytospin apparatus, or by centrifugation techniques wherein said binding agent is a monoclonal antibody which is produced by hybridoma cell line ATCC Accession No. PTA-5001.

68-71. (Cancelled).

72. (Currently amended) An MTAP-binding agent according to claim 67, wherein said sample is from blood.

73. (Original) An MTAP-binding agent according to claim 67, wherein said sample is from bone marrow.

74. (Original) An MTAP-binding agent according to claim 67, wherein said sample is from an effusion.

75. (Original) An MTAP-binding agent according to claim 67, wherein said sample is from urine.

76. (Original) An MTAP-binding agent according to claim 67, wherein said sample is fixed.

77-78. (Cancelled)

79. (Original) Functional antigen binding fragments of a monoclonal antibody secreted by ATCC Accession No. PTA-5001.

80. (Cancelled)